Emission Inventory Improvement Program

U P D A T E

July 1996

EIIP—The Leading Edge in Emissions Estimation

For the last three years, the Emission Inventory Improvement Program (EIIP) team has been working to develop standardized methods for collecting, calculating, quality assuring, and reporting air emissions data. In an attempt to inform the emissions community of the progress made, and the tools available now and in coming months, you will receive a series of mailings introducing you to various aspects of EIIP. This first issue of *EIIP UPDATE* will acquaint you with the Emission Inventory Improvement Program and its mission, goals, and benefits to you. We welcome all comments and questions on EIIP, and any suggestions you may have for improvement.

Who Should Read EIIP UPDATE. . .

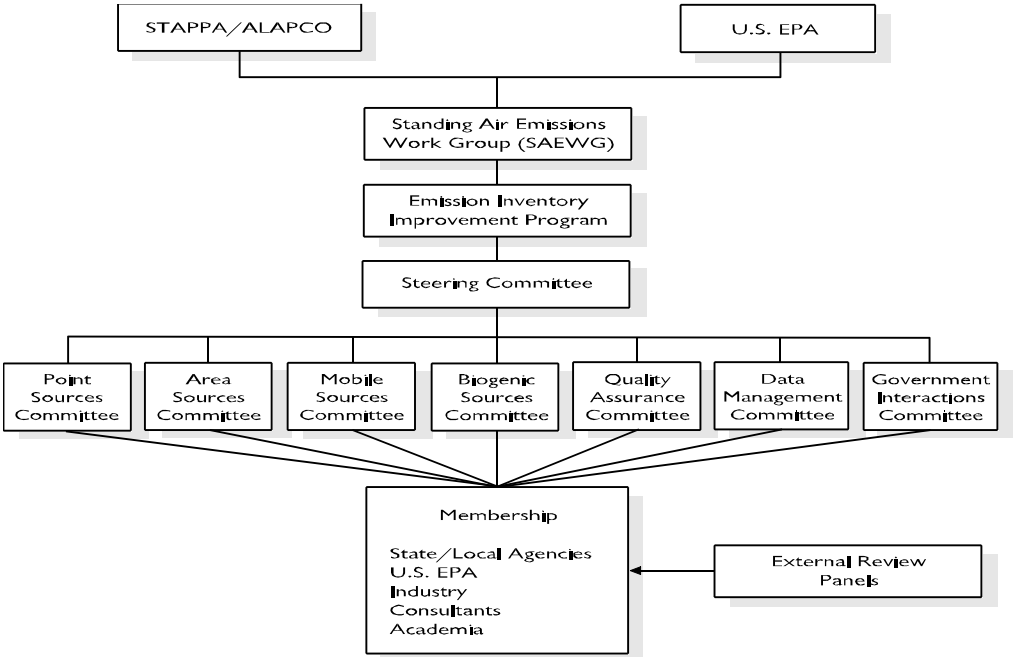
Emission inventories influence decisions made throughout an environmental agency. Thus, it is incumbent on those that use emissions information to appreciate its strengths and limitations. Understanding the products of EIIP will enable, not only **Emission Inventory** developers, but those in **Title I, Title II, Title III (Toxics), Title V, and Enforcement** programs to better use

inventory data. Those in the **Data Management** organization should understand and make preparations to participate in the innovative procedures being developed by EIIP for exchanging emissions data.

EIIP—History and Structure

At its September 1991 semiannual meeting, the joint U.S. EPA-STAPPA/ALAPCO Standing Air Emissions Work Group (SAEWG) requested that EPA pursue a program to improve and refine the emission inventory preparation process. The resulting program, the Emission Inventory Improvement Program, is a cooperative effort between state and local agencies, industry, and EPA to improve estimates of emissions from various sources. The effort, funded by state and local agencies, began in 1993. EIIP is organized into a steering committee and seven working committees (see Figure 1). Stationary point and area sources, mobile sources, and biogenics sources are being addressed by EIIP. One of the committees is addressing quality assurance/quality control (QA/QC) issues , and another is developing new data exchange procedures. Each working committee, composed of state and local agency members, industry association representatives, and EPA, is developing standardized procedures for estimating emissions.

Emission **I**nventory **I**mprovement **P**rogram **U**pdate July 1996



Implementing the Emission Inventory Improvement Program will meet the need for more and better quality emission inventories. The ultimate goal of EIIP is to provide cost-effective, reliable inventories by improving the quality of emissions data collected, and providing for uniform reporting of this information. These data will be made available to state and local agencies, the regulated community, the public, and EPA. The EIIP effort to develop standard procedures supports this goal. EIIP has been designed to increase the likelihood that acceptable quality emission inventory data will be available. The use of EIIP procedures will promote consistency in these activities among the emission inventory reporting groups.

EIIP—What It Is/What It Is Not

EIIP is an organization that has chosen to take maximum advantage of existing emissions estimation information. It is not equipped to do, or sponsor, original research and source testing. EIIP assembles all available information pertaining to estimating emissions (emissions and source activity data) from a

particular source category (e.g., boilers). A committee of technical experts then chooses the most appropriate procedures, standardizes their presentation, and describes the circumstances under which it is appropriate to use each option. The user selects which method to use, based on their particular circumstances and ultimate use of the data. If a research need is identified, a request will be made to the appropriate research organization(s) for assistance.

The EIIP guidance development process does not develop new emission factors, nor will EIIP documents replace AP-42 (look for an expanded article in a future *EIIP UPDATE*). EIIP relies on emission factors developed by other groups and made available in recognized documents such as AP-42. Users of EIIP documents are referred to the appropriate section(s) of AP-42 for selection of emission factors or for more detailed process information. EIIP guidance and AP-42 have a complementary relationship.

EIIP is developing a process for exchanging emissions data between various users (e.g., state to state, state to EPA, state-EPA to the public). EIIP is not developing a data management system. The EIIP data format and transfer

protocol will be independent of the sending or receiving group's data management system. An organization providing emissions data to another group will convert their data to a standard format and make the file available for public access. The receiving organization will convert from the standard format to their system format and use the data as if were generated internally. These procedures will allow each group to continue using their own data management system and will only require a converter be built to change to and from the standard transfer format.

EIIP Provides Standardization and Predictability

EIIP and it products will provide standardization, predictability, and higher quality to the inventory process while allowing an organization to meet its needs in the most cost-effective manner. By selecting EIIP procedures, consistency from group to group will be enhanced. By

adopting the EIIP data format and transfer protocol, movement of data from location will be expedited and data processing will be simplified.

EIIP—Paying Dividends Now and in the Future

As EIIP approaches the end of its third year of existence, the benefits of the program are already evident. The volume of guidance chapters in final or external draft form continues to grow. Although the formal implementation of the guidance was planned to begin in the next phase of the program, some EIIP products are already being put to use at the state level. For example, the Data Attribute Rating System (DARS) was recently endorsed in a California Air Resources Board newsletter as a means of selecting the most reliable method for estimating emissions.

EIIP is producing guidance that will result in higher quality data for air

emission inventories. By pooling resources and working cooperatively, state and local agencies, EPA, and industry are reducing the cost of producing inventories. Furthermore, EIIP empowers state and local agencies by providing the knowledge and peer support system needed to make sound decisions.

High Quality Emission Inventory Data

Having high quality data in air emission inventories is important because these data are the foundation of many decisions. Emission inventories are used for assessing air quality, developing control strategies and regulations, and as a basis for issuing air permits.

Mistakes in the emission inventory affect all subsequent calculations and decisions further along in the process. Correcting problems in emission inventories caused by early mistakes can be costly and even embarrassing when the agency is held publicly accountable for the quality of the work. Furthermore, errors in emission inventories may result in unrealistic

regulations, leaving an agency open to challenges from the public and from a regulated industry.

Cost Savings

In these days of budget cuts at federal and state levels, it is even more important that the remaining money be spent wisely on programs that that produce tangible benefits. By consolidating resources through EIIP, the costs of developing emission inventory guidance and of transferring emission inventory technology are shared among and directed by the states. This reduces the overall cost for emission inventory technology to state and local agencies as well as to the country.

State and Local Agencies in the Lead

Implementing of environmental regulations is now falling more and more to state and local governments. At the same time, the funds to support

development of guidance, factors, and QA tools at the federal level is dwindling. State and local regulatory agency personnel are leading the EIIP process by transferring knowledge that fosters improved decision-making at reduced costs.

A very important benefit of the state and local leadership within EIIP is the formation of a peer support system. The sharing of common problems and their solutions has been one of the primary benefits to those who have participated in developing the guidance and tools. EIIP participants place great value in the guidance and procedures that they have developed together. That collective wisdom is being incorporated in common guidance from state and local agencies, industry, and EPA.

EIIP's Future

As EIIP looks beyond this year, it is clear that the next phase is to do more to implement the guidance in the real world. Several ongoing activities have been

identified as opportunities to put EIIP guidance into action. One of the first and most important is sharing program information with regional or interregional air quality programs such as the Ozone Transport Assessment Group (OTAG), Grand Canyon Visibility Study, Southern Appalachian Mountain Initiative (SAMI), Great Lakes Commission (GLC), and others. Additional opportunities include developing emission control strategies, facilitating the permitting process, providing a basis for emission trading requirements, and providing the tools needed for more consistent and defensible environmental impact assessments. A basic need of these activities to share consistent emission inventory data sets will also be supported with the EIIP's recommendation of a standard data transfer format and transfer protocol.

Because EIIP is not a regulatory body, the success of this program depends on how much and how well other agencies or programs use the guidance. The EIIP procedures documents provide a selection of methods for estimating emissions. While some are clearly identified as "preferred," EIIP has no authority to require that they be used. Rather, the guidance documents can be used as a reference for any group requiring an emissions inventory; that group

can specify that a particular EIIP method (or set of methods) be used that fits with the data quality objectives of their program.

EIIP is seeking additional funding for FY97 and beyond. If successful, the program will be looking for pilot studies with which to test and refine the guidance and other tools that have resulted from this first phase of work. State and local agencies and industry representatives with ideas for pilot studies or test cases are encouraged to contact any of the EIIP committee co-chairs (see EIIP Contact List).

In the Next Mailing

The next mailing of *EIIP UPDATE* will describe how EIIP fits into EPA's legislative requirements, how EPA plans to use the products of EIIP, and how, through this program, state and local agencies can influence the inventory process.

EIIP Contact List

Steering Committee	
Steve Bromberg (EPA)	(919) 541-0684
Roger Westman (Allegheny County Health Department)	(412) 578-8058
Point Sources Committee	
Dennis Beauregard (EPA)	(919) 541-5512
Bill Gill (Texas Natural Resources Conservation Commission)	(512) 239-1477
Area Sources Committee	
Chris Nguyen (California Air Resources Board)	(916) 322-7141

Charles Mann (EPA)	(919) 541-4593
Mobile Sources Committee	
Rob Altenburg (Pennsylvania Bureau of Air Quality)	(717) 783-9248
Greg Janssen (EPA)	(313) 668-4285
Biogenic Sources Committee	
Tom Pierce (EPA)	(919) 541-1375
Quality Assurance Committee	
William Kuykendal (EPA)	(919) 541-5372
Tom Ballou (Virginia Department of Environmental Quality)	(804) 698-4406

Data Management Committee	
John Slade (Pennsylvania Department of Environmental Resources)	(717) 783-9476
Lee Tooly (EPA)	(919) 541-5292
Bill Benjey (EPA)	(919) 541-0821
Governmental Interactions Committee	
Thomas M. Allen (New York Department of Environmental Conservation)	(518) 457-7230
Dave Mobley (EPA)	(919) 541-4676

For Additional Information...

If you have questions about EIIP, its mission, or how it will affect your

program, please call one of the EIIP team members on the contact list. For questions on anything in this *UPDATE*, please contact:

Steve Bromberg
Emission Factor and Inventory Group, MD-14
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711
919-541-1000 (voice)
919-541-0684 (fax)
BROMBERG.STEVE@EPAMAIL.EPA.GOV (e-mail)